

U.S. Serial No. 10/691,783	PATENT
Response to Office Action dated November 28, 2007	450100-04791

### **REMARKS**

In light of the above amendatory matter and remarks to follow, reconsideration and allowance of this application are respectfully solicited.

Claim 5 was rejected in view of Nagano (Published U.S. App. 2002/0012052). It is not clear if Nagano is relied upon as an anticipatory reference or as evidence of the obviousness of claim 5. The stated rejection of claim 5 is as follows:

"Claim 5 is rejected under 35 USC 103 (a) as being unpatentable over Claim 5 is rejected under 35 USC 102 (b) as being anticipated by Nagano, U.S. 2002/0012052."

In view of this ambiguity, it is assumed that Nagano is relied upon under 35 USC 103.

Nagano U.S. 2002/0012052 is the published application that resulted in Nagano U.S. Patent 6,952,233, which was relied upon in the previous Office Action, dated July 27, 2007, to reject claim 5. Since Nagano U.S. 2002/0012052 is relied upon in the Office Action under reply, further discussion herein of "Nagano" is intended to refer to Nagano U.S. 2002/0012052. The Office Action under reply asserts that Nagano describes an infrared adjuster (see page 3, penultimate paragraph of the Office Action). The Office Action continues by stating that Nagano "does not disclose an electro-chromic infrared adjuster having a transmittance to infrared wavelengths electrically controlled to adjust an amount of infrared electromagnetic wave to be transmitted therethrough;" but concludes by stating that, in view of several designs disclosed by Nagano, it would have been obvious to implement Nagano's infrared adjuster with an electro-chromic element (Office Action, page 3, last paragraph and page 4, first paragraph). Applicant's representative respectfully disagrees.

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The purpose of the present invention is to provide night shooting, namely, night imaging, without using an infrared cutoff filter. See in particular paragraphs [0002] and [0062] of Applicant's published application. In contrast, and as noted by the Examiner, Nagano relies upon a "near infrared light cut filter." This light cut filter is, of course, a near infrared cutoff filter, the very filter that is avoided by the present invention.

Furthermore, Nagano does not describe an infrared adjuster having an electrically controlled transmittance to infrared wavelengths, as called for by Applicant's claim 5. Rather, Nagano uses a "material element" that controls the light transmission factor of visible light and, ideally, "has a constant light transmission factor regardless of the wavelengths of incident light" (see paragraph [0088] of Nagano). Of course, the light transmission factor of Nagano's material element, such as material element 9, is not constant. Rather, the light transmission factor of Nagano's material element is illustrated in Nagano's Fig. 3 as being variable over the visible light band. Nagano controls the light transmission factor of his material element "so that the amount of light incident on the image pickup element 10 becomes constant" (see paragraph [0091]). In virtually all of the embodiments described by Nagano, "the light transmission factor wavelengths dependency of the material element 9 is corrected by white-balance adjustment" (see paragraph [0111]). That is, Nagano compensates for the variable light transmission factor over the visible light band in an effort to achieve a substantially constant transmission factor. Nagano recognizes that the photoelectric conversion element he uses has high sensitivity to near infrared light; and to compensate for this high sensitivity, Nagano places a near infrared light cut filter on the optical axis (see paragraph [0186]). The function of Nagano's near infrared light cut filter is to remove the near infrared light to which his photoelectric converter has high sensitivity. He does

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not seek to adjust the amount of infrared transmitted through his material element -- he seeks to eliminate it. See also paragraphs [0191], [0193] and [0197].

Clearly, a careful study of Nagano's disclosure reveals that Nagano relies upon an infrared cutoff filter to remove infrared wavelengths. Nagano fails to suggest an infrared adjuster having an electrically controlled transmittance to infrared wavelengths. Rather, Nagano simply eliminates infrared wavelengths. He does not electrically control the transmittance of his material element in the infrared band. Contrary to the conclusion reached in the Office Action under reply, one of ordinary skill in the art, after reading and understanding Nagano, would not think to replace Nagano's material element 9 with an infrared adjuster, formed as an electrochromic device, that is controlled to vary its transmittance to infrared wavelengths so as to adjust the amount of infrared radiation transmitted through it.

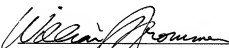
Therefore, in view of the significant and unobvious differences between Applicant's claim 5 and the teachings of Nagano, the withdrawal of the rejection of this claim is respectfully solicited.

Statements appearing above in respect to the disclosure in the cited reference represent the present opinions of the undersigned attorney and, in the event the Examiner disagrees with any of such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the references providing the basis for a contrary view.

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Please charge any additional fees that may be needed, and credit any overpayment, to our  
Deposit Account No. 50-0320.

Respectfully submitted,  
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